ABSTRACT OF THE DISCLOSURE

A secure Internet communication system for PC users housed in a multi-unit building, each unit including at least one PC, comprises one or more computer communication outlets in each unit for plugging in one or more PCs as part of a multi-unit building LAN. Each computer communication outlet is connected to a port on a VLAN-capable switching hub via a shared or dedicated cable connection. The switching hub is operatively coupled to a router which connects via a dedicated high-speed data communication link to an ISP router with the ISP having firewall capability. The switching hub is configured to support multiple VLANs with the one or more network PCs in each unit grouped as a separate VLAN. Each unit corresponds to a VLAN and a VLAN may include one or more network PCs. The VLAN configuration of the switching hub prohibits direct communication between different VLANs via the switching hub to ensure complete privacy and security for network users. Communication between different VLANs is possible only by posting e-mail on the Internet via the ISP. Each computer communication outlet has a pre-assigned unique port number and each connected PC is assigned a static IP address during network registration. The router uses an ARP table to store the static IP address and MAC address for each network PC and automatically verifies address information during each communication attempt. The router is configured for data packet filtering to restrict certain types of inbound data transmission from the Internet and to selectively block a range of IP addresses during data transmission from the Internet.